2133386

EPA NO. C02401 (Cyprus)
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J. David Arkell

November 12, 1990

Mr. Tom Looby
Director of Environmental Protection
4210 East 11th Avenue
Denver, Colorado 80220

Re: SLOC/AMAX
Our File No. 03259.001

Dear Mr. Looby:

This firm represents the Farmer's Reservoir and Irrigation Company ("FRICO"). This letter is written to you on behalf of FRICO, as well as the Cities of Northglenn, Thornton, and Westminster, all of whom are members of the Standley Lake Operating Committee.

Standley Lake, a drinking water source for over 180,000 people, receives water from FRICO's Croke Canal, and also from the Farmer's Highline Canal, which is partially owned by the aforementioned cities. Both of these canals flow near and down gradient from the AMAX Research and Development Center at 5950 McIntyre Street, and the Colorado School of Mines Research Institute ("CSMRI") at 5930 McIntyre Street. We have recently gathered information indicating <u>potential</u> contamination from this site of both of these sources of drinking water.

Specifically, our concerns are:

1. <u>Contamination of the Croke Canal by polluted groundwater seepage</u> from four industrial pretreatment ponds used by AMAX before discharge to the North Table Mountain Water and Sanitation District. Analyses of samples from groundwater monitoring wells located between the ponds and Croke Canal have shown elevated metal and gross alpha radioactivity levels. High radiation levels have also been found at the site of the now closed CSMRI pond. Our concerns are triggered by the information set forth in Exhibits A and B, enclosed. Exhibit A is a report dated July 29, 1990, by Enseco. Exhibit B is a Summary of Ground Water Sampling Results from October 10, 1989.

2. Contamination of the Canals from stormwater runoff from the AMAX R&D property. There is historical radioactive contamination of the soils on the site. Additionally, if AMAX drains and regrades the pretreatment ponds as planned, sludge excavated from the bottom of the ponds may be used as fill on the property. If the sludge is contaminated, stormwater runoff may become contaminated and flow into one or both canals.

3. Contamination of the Farmer's Highline Canal from possible storage tank failure. Liquid storage tanks with unknown contents are located on the AMAX R&D property upgradient of the canal. The tanks do not have any containment structures surrounding them, and in the event of any spill, the contents could flow into the canal and contaminate the water.

Because of these potential hazards to a major source of drinking water, we request that the Colorado Department of Health investigate the waste generation activities at the AMAX R&D and CSMRI properties. A radionuclide speciation to determine the source of highly elevated gross alpha concentrations in the groundwater would also be beneficial. In addition, we request that the EPA be notified of the attached test results, and conduct a complete site investigation.

If you have any questions regarding any of our concerns, please contact me. We look forward to your response, and any information you can provide concerning future actions that may be initiated by CDH or the EPA in this matter.

Very truly yours,

J. David Arkell

SLOC/Looby.Ltr/fht
Enclosure

cc: Mr. Ron Hellbusch, City of Westminster (w/encl)
Mr. Ron Lovan, City of Thornton (w/encl)
Mr. Neal Renfroe, City of Northglenn (w/encl)
Mr. Tom Vernon, Colorado Department of Health (w/encl)
Mr. John List, Colorado Department of Health (w/encl)
Mr. Robert Duprey, EPA (w/encl)
Mr. Albert Sack, FRICO (w/encl)
Mr. Gerald W. Knudsen (w/encl)
Mr. Kurt Anast (w/encl)

Table 1. Groundwater Sampling Results, October 10 1989

WELL #	As	Ba	Ca	Cr	Cu	Gross Alpha	Fe	Pb	Mn	Hg	Mo	Ni	PH	Se	Ag	S	Zn
02	0.031	0.010	0.004	0.130	0.003	88	0.003	0.098	0.015	0.10	0.003	0.011	7.1	0.143	0.0010	1130	0.130
04	0.315	0.098	0.036	0.320	0.034	46	0.150	0.885	0.210	0.10	0.120	0.920	6.6	0.006	0.0003	729	0.050
06	0.315	0.098	0.036	0.030	0.034	6	0.560	0.885	0.640	0.10	0.030	0.107	6.7	0.006	0.0002	67	0.052
07	0.315	0.098	0.036	0.050	0.034	77	0.030	0.885	0.060	0.10	0.030	0.107	7.6	0.008	0.0001	639	0.110
08	0.315	0.098	0.036	0.220	0.034	25	0.030	0.885	0.060	0.10	0.030	0.107	7.3	0.151	0.0008	2220	0.052
10	0.315	0.098	0.036	0.160	0.034	35	0.030	0.885	0.060	0.10	0.030	0.107	7.1	0.011	0.0004	534	0.050
11	0.315	0.098	0.036	0.170	0.034	23	0.030	0.885	0.060	0.10	0.060	0.107	7.1	0.008	0.0014	566	0.050
13	0.450	0.098	0.036	0.240	0.034	337	0.030	0.885	0.060	0.10	0.030	0.107	7.1	0.089	0.0003	1740	0.190
14	0.315	0.098	0.036	0.220	0.034	209	0.030	0.885	0.060	0.10	0.030	0.107	7.3	0.065	0.0004	2000	0.440
15	0.600	0.098	0.036	0.170	0.034	121	0.030	0.885	0.060	0.10	0.030	0.107	7.6	0.061	0.0008	2490	0.180
16	0.315	0.098	0.036	0.030	0.034	36	0.030	0.885	0.060	0.14	0.030	0.107	7.6	0.005	0.0001	59	0.070
17	0.315	0.098	0.036	0.030	0.034	36	0.030	0.885	0.060	0.10	0.030	0.107	7.4	0.003	0.0001	193	0.052
18	0.315	0.098	0.036	0.030	0.034	29	0.030	0.885	0.060	0.10	0.030	0.107	7.2	0.003	0.0001	167	0.052
19	0.315	0.098	0.036	0.030	0.034	3	0.030	0.885	0.060	0.10	0.060	0.107	7.5	0.003	0.0002	17	0.052

Results in ppm. Gross Alpha in pci/l.

EXHIBIT B

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